

- Ⓛ1: (10364) capacitor and trench
- Ⓛ2: (3529) 1 and barrier
- Ⓛ3: (3056) 2 and dielectric
- Ⓛ4: (2403) 3 and (capacitor.cim. or dielectric.cim. or electrode.cim.)
- Ⓛ5: (383) 4 and (atomic or chemisorption)
- Ⓛ6: (180) 5 and (cooper with diffusion)

11. ☐ **Highly mobile but barely resistant**

5 and (oxygen with diffu53)

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	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current Year	Retrieval C	Inventor	S	C	P	3	10
57			US 6613669 B2	20030902	14	Semiconductor device and method for manufacturing the	438/653	438/250;		Tagawa, Tetsuya					US
58			US 6610576 B2	20030826	73	Methods of manufacturing bipolar transistors for use	430/369	438/253;		Norstrom, Hans et al.					US
59			US 6610566 B2	20030826	12	Process for fabricating RuSiOx-containing adhesion	438/250	257/295;		Marsh, Eugene P. et al.					US
60			US 6607953 B2	20030819	7	Structural integrity enhancement of dielectric fi	436/240	433/239;		Deboer, Scott J.					US
61			US 6602720 B2	20030805	9	Single transistor ferroelectric transistor str	436/3	439/762;		Hsu, Sheng Teng et al.					US
62			US 6590251 B2	20030708	25	Semiconductor devices having metal layers as barrier layer	257/310	257/301;		Kang, Sang-bom et al.					US
63			US 6589887 B1	20030706	15	Forming metal derived layers by simultaneous deposition s	438/765	257/750;		Dalton, Jernnie et al.					US
64			US 6580115 B2	20030617	13	Capacitor electrode for integrating high k materials	257/310	438/627;		Aqarwal, Vishnu K.					US
65			US 6579756 B2	20030617	9	DRAM processing methods	438/240	257/301;		Basceri, Cem et al.					US
66			US 6531740 B2	20030311	23	Integrated impedance matching and stability netwo	257/347	257/190;		Bosco, Bruce Allen et al.					US
67			US 6524867 B2	20030225	9	Method for forming platinum-rhodium stack as an	436/3	257/192;		Yang, Haining et al.					US
68			US 6510610 B2	20030211	11	Rhodium-rich oxygen barriers	257/295	438/240;		Yang, Haining et al.					US
69			US 6509601 B1	20030121	35	Semiconductor memory device having capacitor protection	257/310	257/306;		Lee, Yong tak et al.					US
70			US 6498091 B1	20021224	14	Method of using a barrier sputter reactor to remove an	438/627	257/324;		Chen, Ling et al.					US
71			US 6462931 B1	20021008	20	High-dielectric constant capacitor and memory	361/305	438/643;		Tang, Shaoping et al.					US
72			US 6455365 B2	20020924	7	Structural integrity enhancement of dielectric fi	438/240	257/303;		Deboer, Scott J.					US
73			US 6445023 B1	20020903	24	Mixed metal nitride and boride barrier layers	257/295	257/E21.021		Vaartstra, Brian A. et al.					US
74			US 6441421 B1	20020827	15	High dielectric constant materials forming components	257/296	257/306;		Clevenger, Lawrence A. et al.					US
75			US 6417537 B1	20020709	30	Metal oxynitride capacitor	257/296	257/303;		Yang, Sam et al.					US